

Fujitsu LifeBook

S Series

BIOS Guide

LifeBook S Series Model:
S7020

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FUJITSU COMPUTER SYSTEMS

S Series BIOS

BIOS SETUP UTILITY

The BIOS Setup Utility is a program that sets up the operating environment for your notebook. Your BIOS is set at the factory for normal operating conditions, therefore there should be no need to set or change the BIOS environment to operate your notebook.

The BIOS Setup Utility configures:

- Device control feature parameters, such as changing I/O addresses and boot devices.
- System Data Security feature parameters, such as passwords.

Entering the BIOS Setup Utility

To enter the BIOS Setup Utility do the following:

1. Turn on or restart your notebook.
2. Press the [F2] key when a message appears under the Fujitsu logo prompting you to “Press <F2>: BIOS Setup”. This will open the main menu of the BIOS Setup Utility with the current settings displayed.
3. Press the arrow keys to scroll through the other setup menus to review or alter the current settings.

Navigating Through the Setup Utility

The BIOS setup utility consists of six menus: Main, Advanced, Security, Boot, Info and Exit. This document explains each menu in turn including all submenus and setup items.

The following procedures allow you to navigate the setup utility menus:

1. To select a menu, use the cursor keys: [←], [→].
2. To select a field within a menu or a submenu, use the cursor keys: [↑], [↓].
3. To select the different values for each field, press the [Spacebar] to change to the next higher selection and [F5] or [-] to go to the next lower selection.
4. To activate a submenu press the [Enter] key.
5. To return to a menu from a submenu, press the [Esc] key.
6. To go to the Exit menu from any other menu, press the [Esc] key.

- Selecting a field causes a help message about that field to be displayed on the right-hand side of the screen.



- Pressing the Enter key with the highlight on a selection that is not a submenu or auto selection will cause a list of all options for that item to be displayed. Pressing the Enter key again will select the highlighted choice.

7. Pressing the [F9] key resets all items in the BIOS to the default values.
8. Pressing the [F10] key saves the current configuration and exits the BIOS Setup Utility. You will be asked to verify this selection before it is executed.
9. Pressing the [F1] key gives you a general help screen.

Entering the Setup Utility After a Configuration Change or System Failure

If there has been a change in the system configuration that does not agree with the parameter settings stored in your BIOS memory, or there is a failure in the system, the system beeps and/or displays an error message after the Power On Self Test (POST). If the failure is not too severe, it will give you the opportunity to modify the settings of the setup utility, as described in the following steps:

1. When you turn on or restart the computer there is a beep and/or the following message appears on the screen:
Error message - please run SETUP program Press <F1> key to continue, <F2> to run SETUP
2. If an error message is displayed on the screen, and you want to continue with the boot process and start the operating system anyway, press the [F1] key.



- If your notebook emits a series of beeps that sounds like a code and the display is blank, refer to the Troubleshooting section of your system Use's Guide. The Troubleshooting Section includes a list of error messages and their meanings.
- If your data security settings require it, you may be asked for a password before the setup utility will be opened.

3. If an error message is displayed on the screen, and you want to enter the setup utility, press the [F2] key.
4. When the setup utility starts with a fault present, the system displays the following message:
Warning!
Error message
[Continue]
5. Press any key to enter the setup utility. The system will then display the Main Menu with current parameters values.

MAIN MENU – SETTING STANDARD SYSTEM PARAMETERS

The Main Menu allows you to set or view the current system parameters. Follow the instructions for Navigating Through The Setup Utility to make any changes. (See *Navigating Through the Setup Utility on page 2 for more information*)

The following tables show the names of the menu fields for the Main menu and its submenus, all of the options for each field, the default settings and a description of

the field’s function and any special information needed to help understand the field’s use. Note that the actual drive labels shown may vary.



System time and date can also be set from your operating system without using the setup utility. Use the Date and Time icon on your Windows Control panel or type time or date from the MS-DOS prompt.

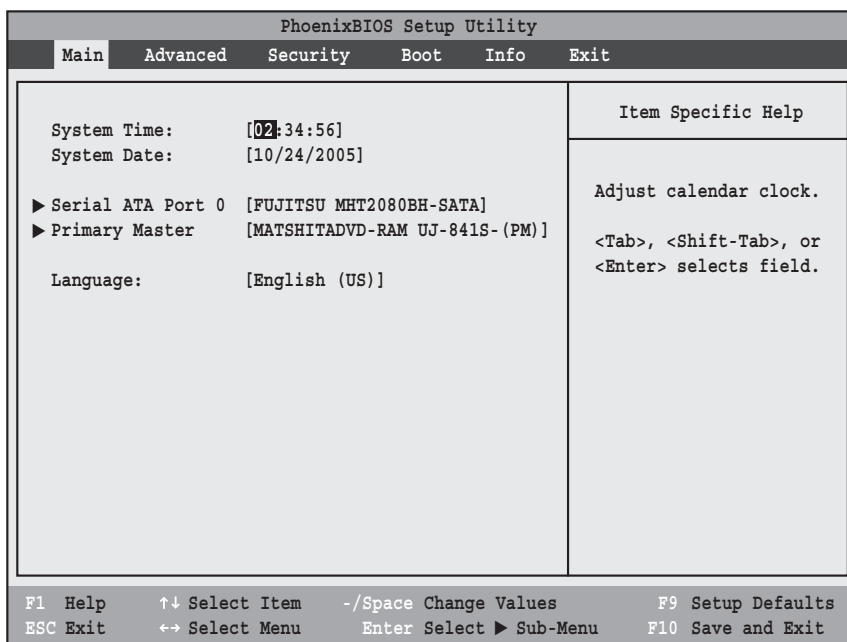


Figure 1. Main Menu

Table 1: Fields, Options and Defaults for the Main Menu

Menu Field	Options	Default	Description
System Time:	—	—	Sets and displays the current time. Time is in a 24 hour format of hours:minutes:seconds with 2 digits for each. (HH:MM:SS). Example: 16:45:57. You may change each segment of the time separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.
System Date:	—	—	Sets and displays the current date. Date is in a month/day/year numeric format with 2 digits each for month and day and 4 digits for year. (MM/DD/YYYY) for example: 03/20/1998. You may change each segment of the date separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.

Table 1: Fields, Options and Defaults for the Main Menu

Menu Field	Options	Default	Description
Serial ATA Port 0:	Selects the Serial ATA Port 0 submenu.	The product # of the Serial ATA/IDE Drive	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Serial ATA Port 0 submenu allowing additional device configuration options for this interface.
Primary Master:	Selects Primary Master submenu	The product # of the Hard Drive	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Primary Master submenu allowing additional device configuration options for this interface.
Language:	<ul style="list-style-type: none"> ▪ English (US) ▪ Japanese (JP) 	[English (US)]	The default setting differs between the US/European and the Japanese model. Selects the display language for the BIOS.

Serial ATA Port 0 Submenu of the Main Menu

The Serial ATA Port 0 submenu identifies what Serial ATA/IDE devices are installed.

Note that actual hard drive label shown may vary. Depending on the drive type, information such as cylinders, heads and sectors may also be displayed.

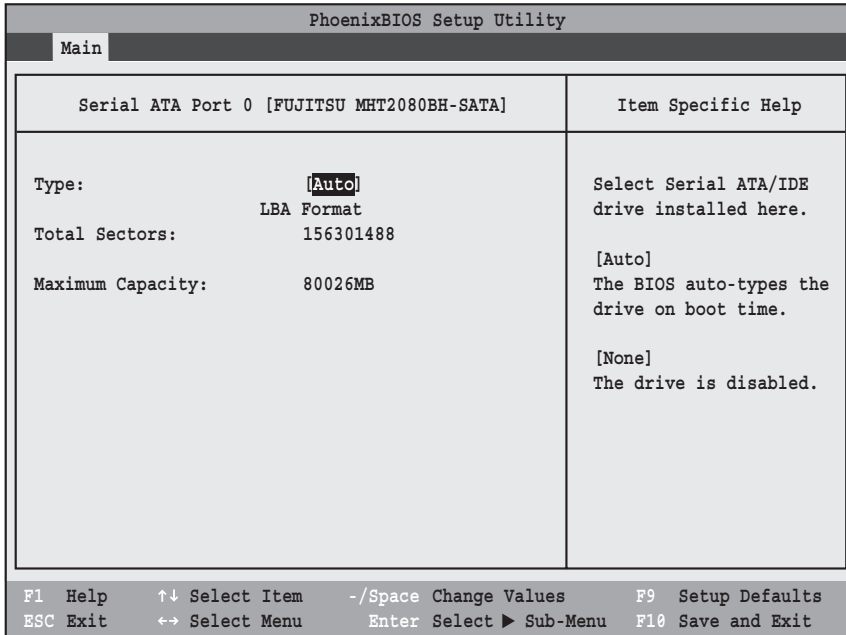


Figure 2. Serial ATA Port 0 Submenu

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> ▪ Auto ▪ None 	[Auto]	Select Auto to have the type of Serial or Parallel ATA device automatically identified by the BIOS at POST. If None is selected, the following Set-up items do not appear.
LBA Format		Logical Block Addressing (LBA)	
Total Sectors:	---	---	The total number of sectors on your hard disk
Maximum Capacity:	---	---	The maximum capacity of your hard disk

Primary Master Submenu of the Main Menu

The Primary Master submenu identifies what primary devices are installed.

Note that actual hard drive label shown may vary. Depending on the drive type, information such as cylinders, heads and sectors may also be displayed.

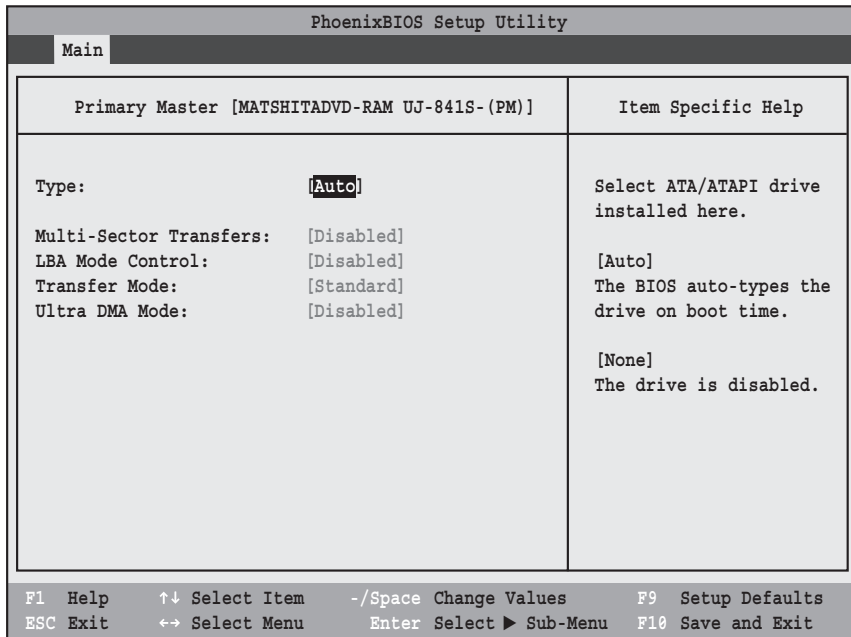


Figure 3. Primary Master Submenu

Table 3: Fields, Options and Defaults for the Primary Master Submenu of the Main Menu

Menu Field	Options	Default	Description
Type:	<ul style="list-style-type: none"> ▪ Auto ▪ None 	[Auto]	Selects the ATA/ATAPI device type. Select Auto to have the device (CD-ROM, CD-R/RW, DVD-ROM, etc.) automatically identified by the BIOS at POST. If None is selected, the following Set-up items do not appear.
Multi-Sector Transfers:	<ul style="list-style-type: none"> ▪ Disabled ▪ 2 Sectors ▪ 4 Sectors ▪ 8 Sectors ▪ 16 Sectors 	[Disabled]	This option cannot be changed when Auto is selected. Specify the number of sectors per block for multiple sector transfer.
LBA Mode Control:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	Enables or disables Logical Block Addressing in place of Cylinder, Head, Sector addressing. This option cannot be changed when Auto is selected.

Table 3: Fields, Options and Defaults for the Primary Master Submenu of the Main Menu

Menu Field	Options	Default	Description
Transfer Mode:	<ul style="list-style-type: none"> ▪ Standard ▪ Fast PIO 1 ▪ Fast PIO 2 ▪ Fast PIO 3 ▪ Fast PIO 4 ▪ Multiword DMA 1 ▪ Multiword DMA 2 	[Standard]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.
Ultra DMA Mode:	<ul style="list-style-type: none"> ▪ Disabled ▪ Mode 0 ▪ Mode 1 ▪ Mode 2 ▪ Mode 3 ▪ Mode 4 ▪ Mode 5 	[Disabled]	Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode. This option cannot be changed when Auto is selected.



- A bootable CD-ROM may have either a floppy disk or hard drive format. When the bootable CD-ROM is used, the drive allocations change automatically without changing the BIOS setup. If a floppy disk format CD-ROM is used, the CD-ROM becomes Drive A. The CD-ROM will only take drive C: (hard drive format) if the internal hard drive is not present or is disabled. The bootable CD-ROM can never use a C: designation if a formatted internal hard drive is present since the C: designator is always reserved for the internal hard drive. The boot sequence ignores the new drive designations, however, your application software will use the new designations.
- Be aware of the operating environment when booting from a CD-ROM or you may overwrite files by mistake.

Exiting from Main Menu

When you have finished setting the parameters on this menu, you can either exit from the setup utility, or move to another menu. If you wish to exit from the setup utility, press the [Esc] key or use the cursor keys to go to the Exit menu or to move to another menu.

ADVANCED MENU – SETTING DEVICE FEATURE CONTROLS

The Advanced Menu allows you to:

- Set the I/O addresses for the serial and parallel ports.
- Set the features of the keyboard/mouse.
- Select between the display panel and/or an external CRT display.
- Set internal device configurations
- Configure USB and CPU features.
- Configure miscellaneous features such as Wake Up On LAN.
- Configure DMI Event Logging.

Follow the instructions for Navigating Through the Setup Utility to make any changes.

(See Navigating Through the Setup Utility on page 2 for more information)

The following tables show the names of the menu fields for the Advanced Menu and its submenus, all of the options for each field, the default settings and a description of the field's function, and any special information needed to help understand the field's use.

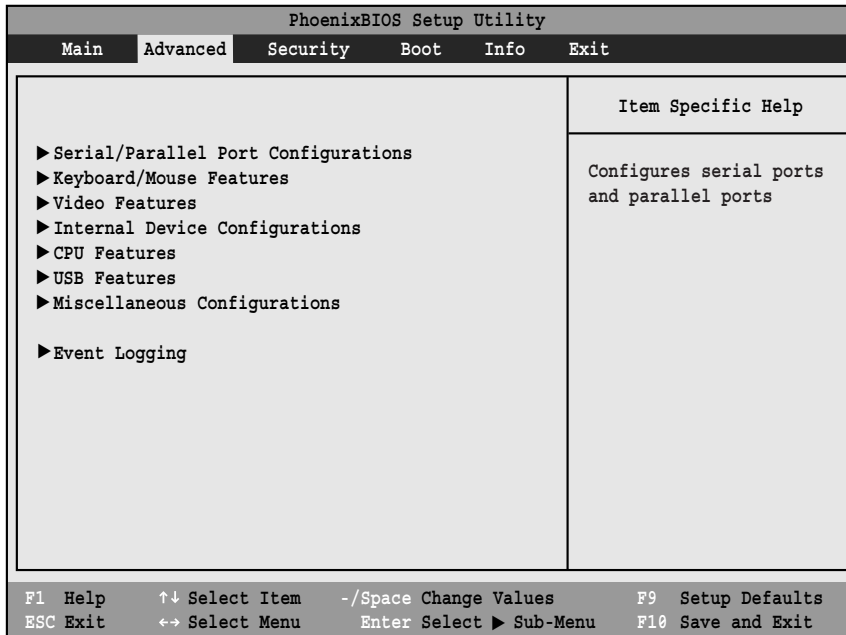


Figure 4. Advanced Menu

Table 4: Fields, Options and Defaults for the Advanced Menu

Menu Field	Description
Serial/Parallel Port Configurations	When selected, opens the Serial/Parallel Port Configurations submenu which allows the user to modify settings for serial, infrared and parallel ports.
Keyboard/Mouse Features	When selected, opens the Keyboard/Mouse Features submenu, which allows setting external and internal keyboard and mouse parameters.
Video Features	When selected, opens the Video Features submenu, which allows selecting between the display panel and/or an external CRT display or video projector.
Internal Device Configurations	When selected, opens the Internal Device Configuration submenu, which allows enabling or disabling the modem, IDE, and LAN Controllers.
CPU Features	When selected, opens the CPU Features submenu, which allows you to change the Intel(R) SpeedStep(R) Technology settings.
USB Features	Configures USB features.
Miscellaneous Configurations	Configures miscellaneous features, such as Wake Up On LAN and Power Button.
Event Logging	When selected, opens the event logging submenu.

Serial/Parallel Port Configuration Submenu of the Advanced Menu

The Serial/Parallel Port Configuration submenu provides the ability to set the I/O addresses and interrupt levels for the serial, infrared, and parallel ports of your notebook.



- To prevent IRQ and address conflicts, avoid changing the default settings. If you must change the settings, you can call 1-800-8Fujitsu for technical assistance.
- The BIOS will warn you of resource conflicts by placing a yellow asterisk next to each device that is in conflict.
- All I/O addresses in Table 5 are in hexadecimal.



I/O addresses, DMA channels, and Interrupt levels can be entered in various ways, including via the BIOS setup utility, the control software for the I/O device, or the hardware. If any two ports or devices, serial or parallel, have the same I/O address assigned your notebook will not function normally. Please keep a record of original settings before making any changes in the event that a restoration is required. See your hardware and software documentation as well as the setup utility to determine settings, limitations, etc.

PhoenixBIOS Setup Utility		
Advanced		
Serial/Parallel Port Configurations		Item Specific Help
Serial Port:	[Enabled]	[Disabled]
I/O Address:	[3F8-3FF]	The port is disabled.
Interrupt:	[IRQ 4]	
Infrared Port:	[Enabled]	[Enabled]
Mode:	[FIR]	The port is enabled
I/O Address:	[2E8 - 2EF]	with user configuration.
Interrupt:	[IRQ 3]	
I/O Address:	[400-43F]	[Auto]
DMA Channel:	[DMA 3]	Plug & Play OS
Parallel Port:	[Enabled]	configure the port.
Mode:	[Bi-directional]	
I/O Address:	[378-37F]	
Interrupt:	[IRQ 7]	

F1 Help	↑↓ Select Item	-/Space Change Values	F9 Setup Defaults
ESC Exit	↔ Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit

Figure 5. Serial/Parallel Port Configuration Submenu

Table 5: Fields, Options and Defaults for Serial/Parallel Port Configuration Submenu of Advanced Menu

Menu Field	Options	Default	Description
Serial Port:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled ▪ Auto 	[Enabled]	Configures the serial port using either no configuration (Disabled), a user defined configuration (Enabled), or by allowing the BIOS or OS to choose the configuration (Auto).
I/O Address:	<ul style="list-style-type: none"> ▪ 3F8 - 3FF ▪ 2F8 - 2FF ▪ 3E8 - 3EF ▪ 2E8 - 2EF 	[3F8 - 3FF]	Allows user to set the serial port base I/O address when serial port is Enabled.
Interrupt:	<ul style="list-style-type: none"> ▪ IRQ 3 ▪ IRQ 4 ▪ IRQ 10 ▪ IRQ 11 	[IRQ 4]	Allows user to set the serial port interrupt when serial port is Enabled.
Infrared Port:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled ▪ Auto 	[Enabled]	Configures the infrared port using either no configuration (Disabled), a user defined configuration (Enabled), or by allowing the BIOS or OS to choose the configuration (Auto).
Mode:	<ul style="list-style-type: none"> ▪ IrDA ▪ FIR 	[FIR]	When the infrared port is enabled this option is available allowing the user to set the mode for the infrared port. Standard IrDA (IrDA 1.0) transmits data at up to 115.2 Kbps; FIR (IrDA 1.1) transmits at up to 4Mbps.
I/O Address:	<ul style="list-style-type: none"> ▪ 3F8 - 3FF ▪ 2F8 - 2FF ▪ 3E8 - 3EF ▪ 2E8 - 2EF 	[2E8 - 2EF]	Allows user to set the infrared port I/O address when the infrared port is Enabled.
Interrupt:	<ul style="list-style-type: none"> ▪ IRQ 3 ▪ IRQ 4 ▪ IRQ 10 ▪ IRQ 11 	[IRQ 3]	Allows user to set the infrared port interrupt when the infrared port is Enabled.
I/O Address:	<ul style="list-style-type: none"> ▪ 400-43F ▪ 480-4BF ▪ 500-53F ▪ 580-5BF 	400-43F	Allows user to set the FIR port I/O address when the infrared port is Enabled.
DMA Channel:	<ul style="list-style-type: none"> ▪ DMA 1 ▪ DMA 3 	[DMA 3]	Allows user to set the infrared port DMA Channel when the infrared port mode is set to FIR.
Parallel Port:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled ▪ Auto 	[Enabled]	Configures the parallel port using either no configuration (Disabled), a user defined configuration (Enabled), or by allowing the BIOS or OS to choose the configuration (Auto).
Mode:	<ul style="list-style-type: none"> ▪ Output Only ▪ Bi-directional ▪ ECP 	[Bi-directional]	When the parallel port is enabled this option is available allowing the user to set the mode for the parallel port. Bi-directional allows two-way transfer of information between your notebook and a parallel device. Output Only (Half Duplex) allows information to be transferred in only one direction, from your notebook to the printer or similar device. ECP Mode allows communication with the ECP class of parallel I/O devices.
I/O Address:	<ul style="list-style-type: none"> ▪ 378 - 37F ▪ 278 - 27F ▪ 3BC - 3BF 	[378 - 37F]	Allows user to set the parallel port base I/O address when the parallel port is Enabled.
Interrupt:	<ul style="list-style-type: none"> ▪ IRQ 5 ▪ IRQ 7 	[IRQ 7]	Allows user to set the parallel port interrupt when the parallel port is Enabled.

Keyboard/Mouse Features Submenu of the Advanced Menu

The Keyboard/Mouse Features submenu is for setting the parameters of the integrated and external mouse and keyboard.

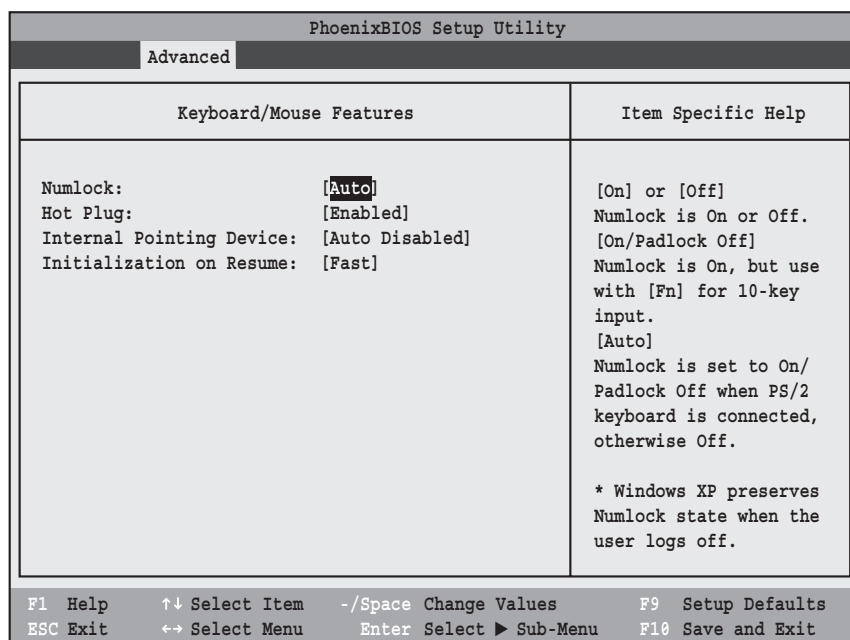


Figure 6. Keyboard/Mouse Features Submenu

Table 6: Fields, Options and Defaults for the Keyboard/Mouse Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Numlock:	<ul style="list-style-type: none"> ▪ Auto ▪ On ▪ Off ▪ On/Padlock Off 	[Auto]	Sets the NumLock function state when the computer completes booting.
Hot Plug:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables and disables the ability to plug a mouse or keyboard into the port and have it immediately recognized and active.
Internal Pointing Device:	<ul style="list-style-type: none"> ▪ Auto Disabled ▪ Manual Setting ▪ Always Enabled ▪ Always Disabled 	[Auto Disabled]	Sets the device controlling the mouse cursor on the screen. Always Enabled makes the pointing device always enabled whether there is an external mouse or not. Always Disabled makes the pointing device always disabled. Auto Disabled disables the internal pointing device when an external pointing device is connected to the port.
Initialization on Resume:	<ul style="list-style-type: none"> ▪ Fast ▪ Normal 	[Fast]	When Fast is selected, initialization for the external devices is optimized to speed up on Resume. When Normal is selected, initialization is not optimized.

Video Features Submenu of the Advanced Menu

The Video Features Submenu is for setting the display parameters.

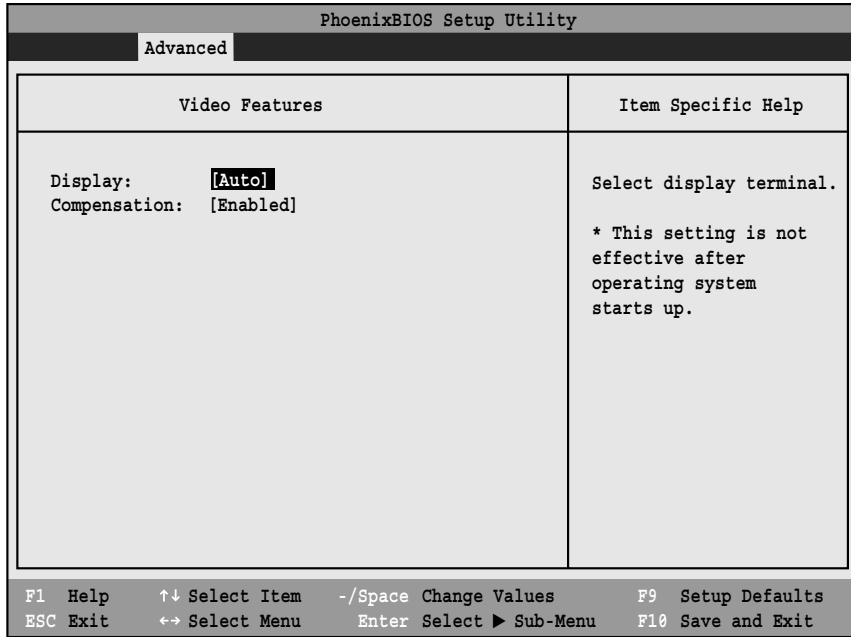


Figure 7. Video Features Submenu

Table 7: Fields, Options and Defaults for the Video Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Display:	<ul style="list-style-type: none"> ▪ Internal Flat Panel ▪ External (Analog) ▪ External (Digital) ▪ Auto 	[Auto]	Selects where the video signal will be routed. Note that Windows settings take precedence over this setting after system boots up.
Compensation:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables display compensation. Note that Windows settings take precedence over this setting after system boots up.

Internal Device Configurations Submenu of the Advanced Menu

The Internal Device Configuration submenu allows the user to configure other internal devices.

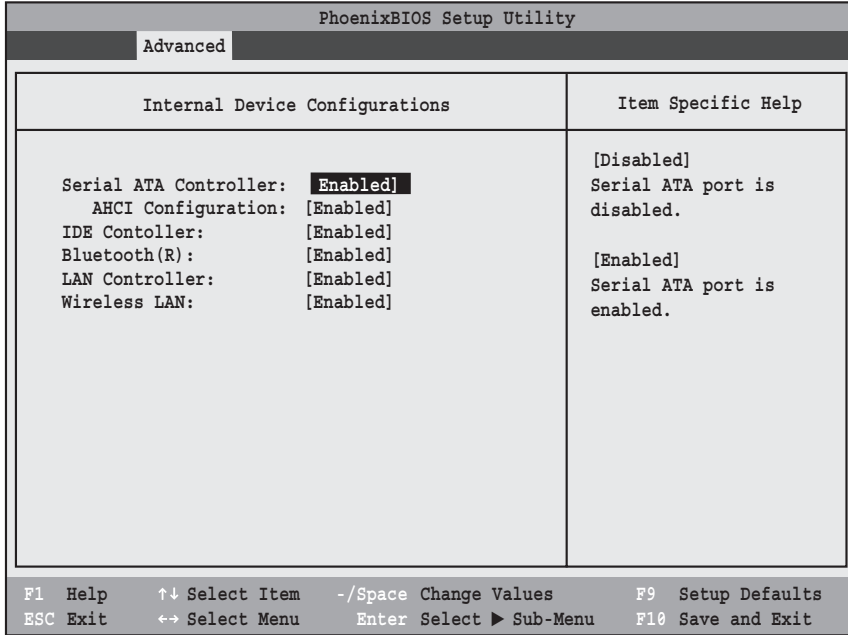


Figure 8. Internal Device Configuration Submenu

Table 8: Fields, Options and Defaults for the Internal Device Configuration Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Serial ATA Controller:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables serial ATA devices.
AHCI Controller:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables the AHCI (Advanced Host Controller Interface). This selection does not appear when PATA mode is enabled.
IDE Controller:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables the IDE port.
Bluetooth(R):	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables the Bluetooth(R) device, when present.
LAN Controller:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables the LAN controller.
Wireless LAN:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables the Wireless LAN device.

CPU Features Submenu of the Advanced Menu

The CPU Features Submenu allows you to change the settings for Intel(R) SpeedStep(R) Technology for your system.

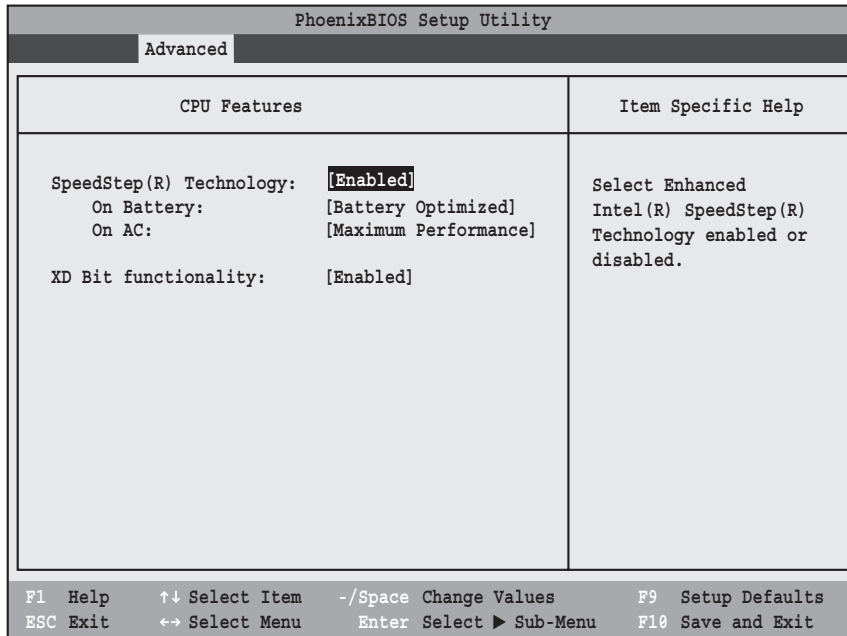


Figure 9. CPU Features Submenu

Table 9: Fields, Options and Defaults for the CPU Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
SpeedStep(R) Technology:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Enables or disables SpeedStep(R) Technology which allows the user to determine the CPU performance when the tablet is running on AC or battery. This technology decreases power consumption by decreasing CPU speeds.
On Battery:	<ul style="list-style-type: none"> ▪ Maximum Performance ▪ Battery Optimized ▪ Automatic 	[Battery Optimized]	Allows the user to select the CPU performance when the system is running on battery power.
On AC:	<ul style="list-style-type: none"> ▪ Maximum Performance ▪ Battery Optimized ▪ Automatic 	[Maximum Performance]	Allows the user to select the CPU performance when the system is running on AC power.
XD Bit functionality:	<ul style="list-style-type: none"> ▪ Enabled] ▪ Disabled 	[Enabled]	Allows the user to enable and disable the Execute Disable Bit functionality. Execute Disable Bit allows the processor to classify areas in memory where application code can and cannot execute. In the event an internet worm attempts to insert code in the buffer, the processor disables code execution to prevent damage or worm propagation.

USB Features Submenu of the Advanced Menu

The USB Features Submenu enables and disables legacy USB support for your system.

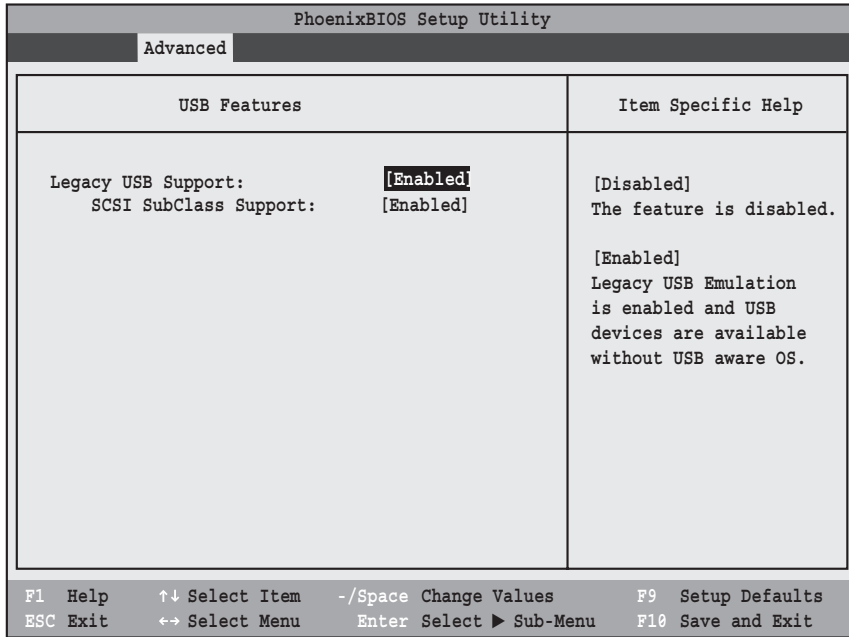


Figure 10. USB Features Submenu

Table 10: Fields, Options and Defaults for the USB Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Legacy USB Support:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	When Disabled is selected, legacy USB emulation is disabled. When Enabled is selected, legacy USB emulation is enabled and USB devices are available without USB-aware OS.
SCSI SubClass Support:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	When Enabled is selected, USB devices that belong to the SCSI subclass in the mass storage class (e.g., USB Memory Key) are enabled.

Miscellaneous Configurations Submenu of the Advanced Menu

The Miscellaneous Configurations Submenu configures the miscellaneous features for your system.

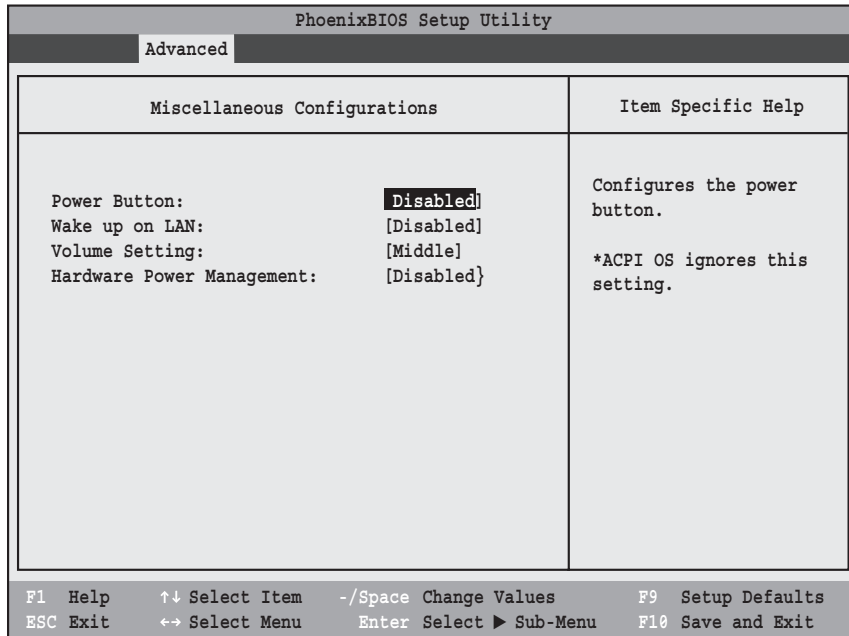


Figure 11. Miscellaneous Configurations Submenu

Table 11: Fields, Options and Defaults for the Miscellaneous Configurations Submenu

Menu Field	Options	Default	Description
Power Button:	<ul style="list-style-type: none"> ▪ Disabled ▪ Power Off 	[Disabled]	When Disabled is selected, the power button does not respond to a press. When Power Off is selected, the button turns the power off.
Wake up on LAN:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	When Enabled is selected, the system will wake up when the internal LAN device receives a Magic Packet while the system is powered off.
Volume Setting:	<ul style="list-style-type: none"> ▪ Off ▪ Minimum ▪ Middle ▪ Maximum 	[Middle]	Allows you to set or disable the system volume level.
Hardware Power Management:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	When Enabled is selected, the Hardware Power Management feature is turned on.

Event Logging Submenu of the Advanced Menu

The Event Logging Submenu configures event logging features for DMI events.

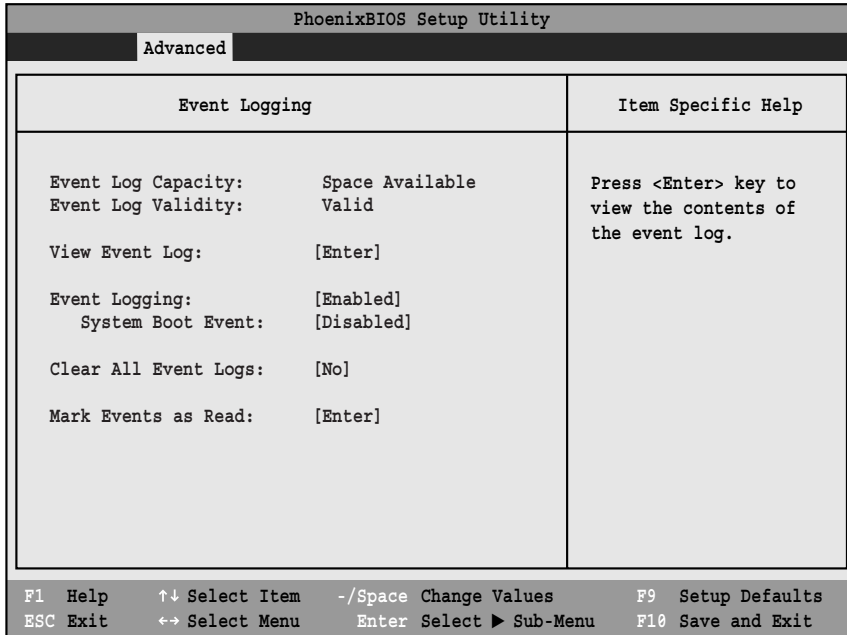


Figure 12. Event Logging Submenu

Table 12: Fields, Options and Defaults for the Event Logging Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Event Log Capacity:		Space Available	Display only.
Event Log Validity:		Valid	Display only.
View Event Log:	<ul style="list-style-type: none"> ▪ Enter 	[Enter]	Allows you to view content of event log.
Event Logging:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	<ul style="list-style-type: none"> ▪ No ▪ Yes 	[No]	When set to [Yes] all event logs will be cleared at next boot.
Mark Events as Read:	<ul style="list-style-type: none"> ▪ Enter 	[Enter]	Allows you to make all events currently in the event log as read.

SECURITY MENU – SETTING THE SECURITY FEATURES

The Security menu allows you to set up the data security features of your notebook to fit your operating needs and to view the current data security configuration. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through the Setup Utility on page 2 for more information*)

The following tables show the names of the menu fields for the Security menu and its submenus, the options for each field, the default settings and a description of the



Entering a password incorrectly three times in a row will cause the keyboard and mouse to be locked out and the warning [System Disabled] to be displayed. If this happens, restart the computer by turning off and on the power with the power switch and use the correct password on reboot.



field's function and any special information needed to help understand the field's use. The default condition is no passwords required and no write protection.

- If you set a password, write it down and keep it in a safe place. If you forget the password you will have to contact your support representative to regain access to your secured functions and data.
- If you make an error when re-entering the password a [Warning] will be displayed on the screen. To try again press the [Enter] key and then retype the password. Press the [Esc] key to abort the password setting process.
- If the Password on Boot is Disabled you will not have to type your password upon resuming the system from the Suspend or Save-to-Disk modes.

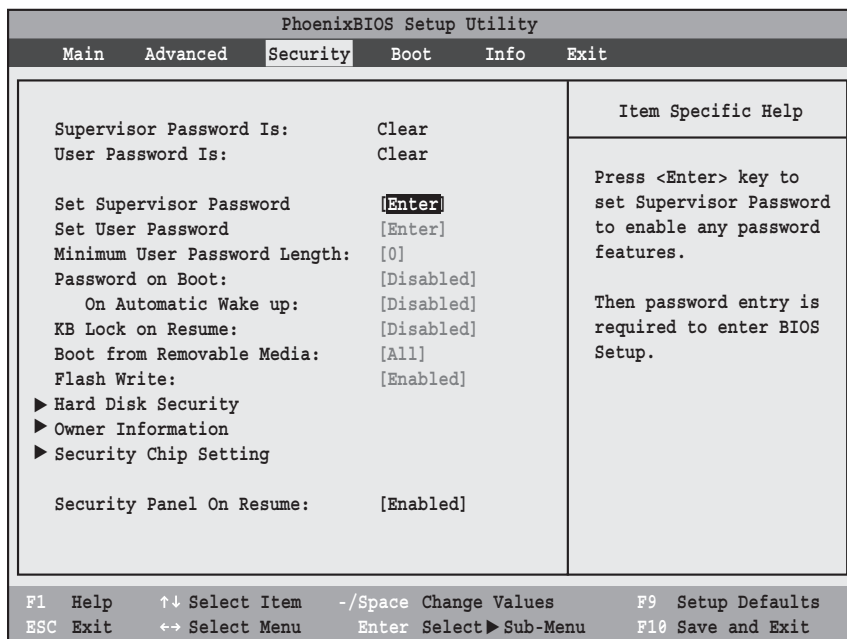


Figure 13. Security Menu

Table 13: Fields, Options and Defaults for the Security Menu

Menu Field	Options	Default	Description
Supervisor Password is:	—	Clear	A display-only field. Set is displayed when the system Supervisor Password is set and Clear when it is not.
User Password is:	—	Clear	A display-only field. Set is displayed when the general User Password is set, and Clear when it is not.
Set Supervisor Password	[Enter]	[Enter]	Sets, changes or cancels Supervisor Password. The Supervisor Password may be up to seven characters long and include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Supervisor Password is set it must be used to access the BIOS setup utility.
Set User Password	[Enter]	[Enter]	This field can only be accessed if the Supervisor Password is set. Sets, changes or cancels the User Password. The User Password may be up to seven characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a User Password is set it must be used to access the BIOS setup utility.
Minimum User Password Length:	[0]	[0]	Sets the minimum length for User Password.
Password on Boot:	<ul style="list-style-type: none"> ▪ Disabled ▪ First Boot ▪ Every Boot 	[Disabled]	When Enabled, a password (User or Supervisor) is required after the Power On Self Test (POST) before the operating system will be read from a disk. When set to Disabled no password is required. If no Supervisor Password is set this feature is not available and no password is required.
On Automatic Wake up:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	This field is active only when Password On Boot is set to First Boot or Every Boot. When disabled, password entry is not required on automatic wake up on LAN or Real Time Clock. When enabled, the password is still required on automatic wake up.
KB Lock on Resume:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	When set to Enabled, the keyboard and mouse inputs are locked out upon Suspend from Resume or Save-to-Disk mode until the password is entered. When both passwords are set, the User password is always used to lock. Password entry before OS boot is disabled upon unattended boot.
Boot from Removable Media:	<ul style="list-style-type: none"> ▪ All ▪ Supervisor only 	[All]	Enable password allows supervisor access only.
Flash Write:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	When disabled, the BIOS Flash memory is write protected.
Hard Disk Security	—	—	When selected, opens the Hard Disk Security submenu, which allows you to configure hard disk security features.
Owner Information	—	—	When selected, opens the Owner Information submenu, which allows you to set Owner information.
Security Chip Setting	—	—	When selected, opens the Security Chip Settings submenu, which allows you to set Security Chip information.
Security Panel On Resume	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Allows the Security Panel Feature to be enabled or disabled upon Suspend from Resume.

Hard Disk Security Submenu of the Security Menu

The Hard Disk Security Submenu is for configuring hard disk security features.

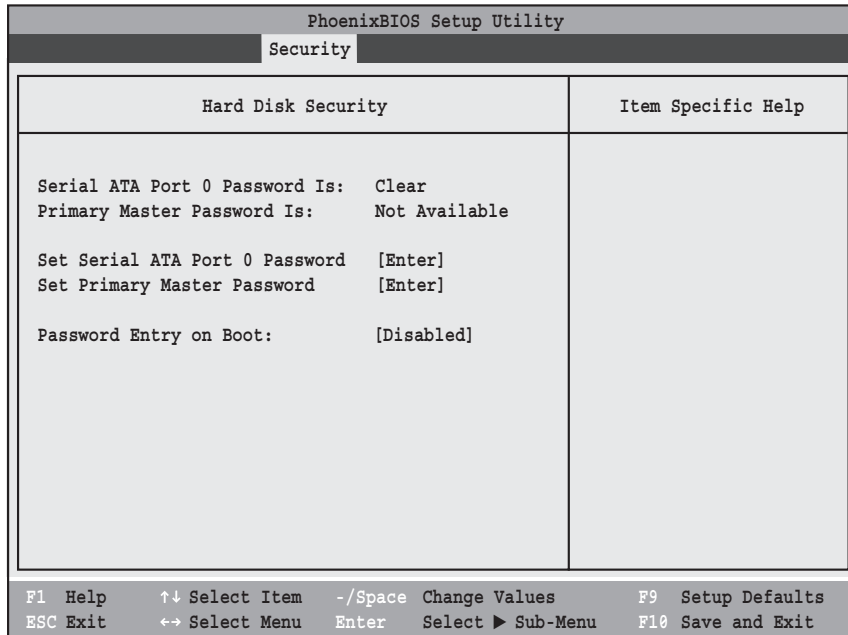


Figure 14. Hard Disk Security Submenu

Table 14: Fields, Options and Defaults for the Hard Disk Security Submenu of the Security Menu

Note: The fields on this submenu cannot be changed unless the Supervisor Password is set.

Menu Field	Options	Default	Description
Serial ATA Port 0 Password Is::	---	---	A display-only field. Set is displayed when the Serial ATA Port 0 Password is set and Clear when it is not.
Primary Master Password Is:	---	---	A display-only field. Not Available is displayed.
Set Serial ATA Port 0 Password	---	[Enter]	Sets, changes or cancels Serial ATA Port 0 Password. The password may be up to seven characters long and include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Serial ATA Port 0 Password is set it must be used to access the hard disk. Data on the hard disk cannot be read on other systems.
Set Primary Master Password	---	[Enter]	Not currently available.
Password Entry on Boot:	<input type="checkbox"/> Disabled <input type="checkbox"/> Enabled	[Disabled]	When this is disabled, it is not necessary to enter the password before booting. The hard disk is still password-protected without entering a password.

Owner Information Submenu of the Security Menu

The Owner Information Submenu is for setting owner information. Note that Owner Information cannot be set without having entered a supervisor’s password.

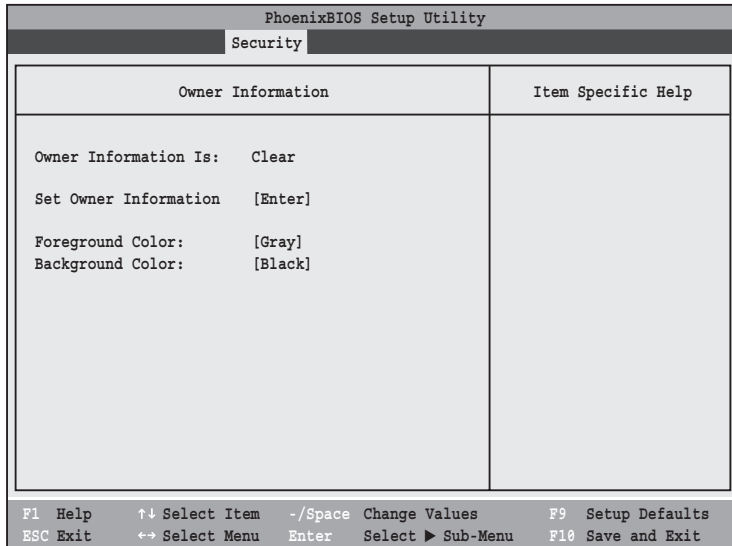


Figure 15. Owner Information Submenu

Table 15: Fields, Options and Defaults for the Owner Information Submenu of the Security Menu

Note: The fields on this submenu cannot be changed unless the Supervisor Password is set.

Menu Field	Options	Default	Description
Owner Information Is:	—	Clear	Display only.
Set Owner Information:	—	[Enter]	Field to write owner information, e.g., your name.
Foreground Color:	<ul style="list-style-type: none"> <li style="width: 25%;"><input type="checkbox"/> Black <li style="width: 25%;"><input type="checkbox"/> Red <li style="width: 25%;"><input type="checkbox"/> Gray <li style="width: 25%;"><input type="checkbox"/> Light Red <li style="width: 25%;"><input type="checkbox"/> Blue <li style="width: 25%;"><input type="checkbox"/> Magenta <li style="width: 25%;"><input type="checkbox"/> Light Blue <li style="width: 25%;"><input type="checkbox"/> Light Magenta <li style="width: 25%;"><input type="checkbox"/> Green <li style="width: 25%;"><input type="checkbox"/> Brown <li style="width: 25%;"><input type="checkbox"/> Light Green <li style="width: 25%;"><input type="checkbox"/> Yellow <li style="width: 25%;"><input type="checkbox"/> Cyan <li style="width: 25%;"><input type="checkbox"/> White <li style="width: 25%;"><input type="checkbox"/> Light Cyan <li style="width: 25%;"><input type="checkbox"/> Bright White 	[Gray]	Set foreground color.
Background Color:	<ul style="list-style-type: none"> <li style="width: 25%;"><input type="checkbox"/> Black <li style="width: 25%;"><input type="checkbox"/> Red <li style="width: 25%;"><input type="checkbox"/> Gray <li style="width: 25%;"><input type="checkbox"/> Light Red <li style="width: 25%;"><input type="checkbox"/> Blue <li style="width: 25%;"><input type="checkbox"/> Magenta <li style="width: 25%;"><input type="checkbox"/> Light Blue <li style="width: 25%;"><input type="checkbox"/> Light Magenta <li style="width: 25%;"><input type="checkbox"/> Green <li style="width: 25%;"><input type="checkbox"/> Brown <li style="width: 25%;"><input type="checkbox"/> Light Green <li style="width: 25%;"><input type="checkbox"/> Yellow <li style="width: 25%;"><input type="checkbox"/> Cyan <li style="width: 25%;"><input type="checkbox"/> White <li style="width: 25%;"><input type="checkbox"/> Light Cyan <li style="width: 25%;"><input type="checkbox"/> Bright White 	[Black]	Sets background color.

Security Chip Setting Submenu of the Security Menu

The Security Chip Setting Submenu is for enabling or disabling the embedded security chip.

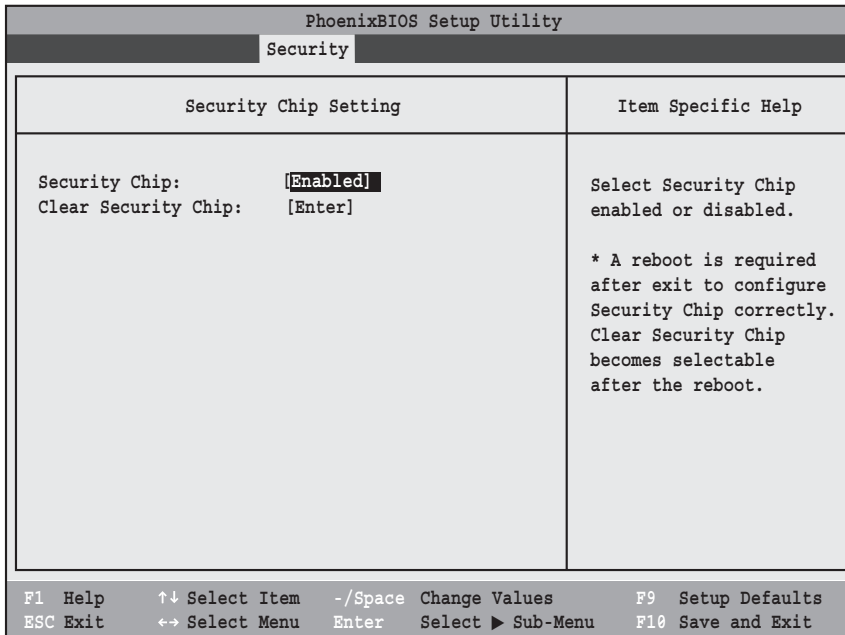


Figure 16. Security Chip Setting Submenu

Table 16: Fields, Options and Defaults for the Security Chip Setting Submenu of the Security Menu

Menu Field	Options	Default	Description
Security Chip:	<ul style="list-style-type: none"> • Disabled • Enabled 	[Disabled]	Select to enable or disable the security chip. Note that after configuring the security chip, a system reboot is required.
Clear Security Chip	—	[Enter]	Allows you to clear the security chip. Note that if you clear the security chip, you will not be able to access data that has already been encrypted. This field is only visible when Security Chip is [Enabled].

Exiting from the Security Menu

When you have finished setting the parameters on the Security Menu, you can either exit from setup utility or move to another menu. If you wish to exit from setup utility, press the [Esc] key to go to the Exit Menu. If you wish to move to another menu, use the cursor keys.

BOOT MENU – SELECTING THE OPERATING SYSTEM SOURCE

The Boot Menu is used to select the order in which the BIOS searches sources for the operating system. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through the Setup Utility* on page 2 for more information)

The following tables show the names of the menu fields for the Boot menu and its submenu, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.

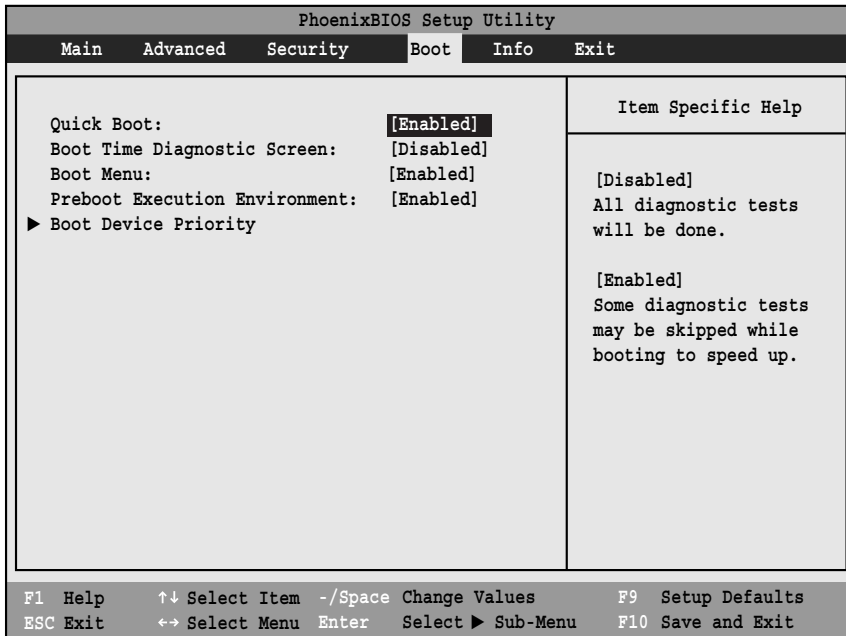


Figure 17. Boot Menu

Table 17: Fields, Options and Defaults for the Boot Menu

Menu Field	Options	Default	Description
Quick Boot:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Turns on and off booting with a truncated set of Power On Self Tests. (Fewer tests mean faster turn on.)
Boot Time Diagnostic Screen:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Disabled]	Turns on and off display of test results instead of Fujitsu logo screen during Power On Self Test.
Boot Menu:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	When disabled, the boot menu is disabled and the F12 key is ignored. When enabled, the boot menu is enabled. Note: This field cannot be changed unless the Supervisor Password is set.
Preboot Execution Environment:	<ul style="list-style-type: none"> ▪ Disabled ▪ Enabled 	[Enabled]	Turns on and off boot from network server options.
Boot Device Priority:	Selects the Boot Device Priority submenu	—	This menu allows setting up the source for the operating system. See "Boot Device Priority Submenu" in the following section.

The Boot Device Priority Submenu of the Boot Menu

The Boot Device Priority Submenu is for setting the order of checking of sources for the operating system.



Be aware of the operating environment when booting from a CD-ROM or you may overwrite files by mistake.

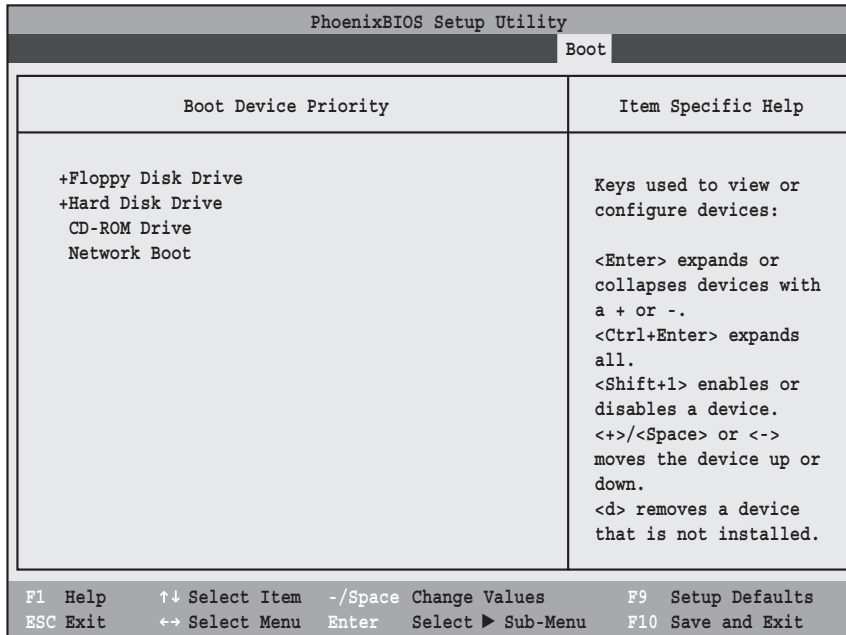


Figure 18. Boot Device Priority Submenu

Table 18: Fields, Options and Defaults for the Boot Device Priority Submenu of the Boot Menu

Menu Field	Description
+Floppy Disk Drive	The boot selections determine the order in which the BIOS searches for the operating system during a startup sequence. To change the order highlight one source by using the [up] or [down] cursor keys and then press the [+] or [-] key to change the order number for that source. Be sure to save your changed order when you exit the BIOS setup utility.
+Hard Disk Drive	
CD-ROM Drive	
Network Boot*	

* Network Boot only appears if Preboot Execution Environment is enabled.

Exiting from Boot Menu

When you have finished setting the boot parameters with the Boot menu, you can either exit from the setup utility or move to another menu. If you wish to exit from the setup utility press the [Esc] key to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

INFO MENU – DISPLAYS BASIC SYSTEM INFORMATION

The Info menu is a display only screens that provides the configuration information for your notebook.

The following table shows the names of the menu fields for the Info menu and the information displayed in those fields. These fields are for information purposes only, and are not editable.



The information, including CPU type and speed, and total memory, displayed on this screen varies according to the unit you purchased.

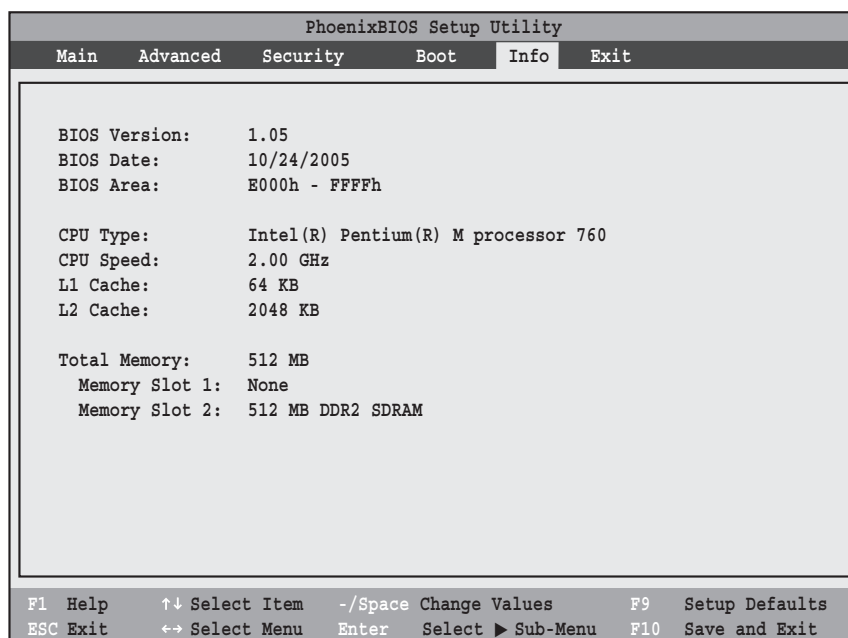


Figure 19. Info Menu

Table 19: Fields, Options and Defaults for the Info Menu

Note that the parameters listed in the following table may be different, depending upon your system configuration.

Menu Field	Default	Menu Field	Default
BIOS Version:	1.XX	L1 Cache:	64 KB
BIOS Date:	XX/XX/XXXX	L2 Cache:	2048 KB
BIOS Area:	E000h – FFFFh	Total Memory:	512 MB
CPU Type:	Intel(R) Pentium(R) M processor 760	Memory Slot 1:	None
CPU Speed:	2.00 GHz	Memory Slot 2:	512 MB DDR2 SDRAM

EXIT MENU – LEAVING THE SETUP UTILITY

The Exit Menu is used to leave the setup utility. Follow the instructions for Navigating Through the Setup Utility to make any changes. (See *Navigating Through the Setup Utility* on page 2 for more information). The following table shows the names of the menu fields for the Exit menu, the default settings and a description of the field's function and any special information needed to help understand the field's use.

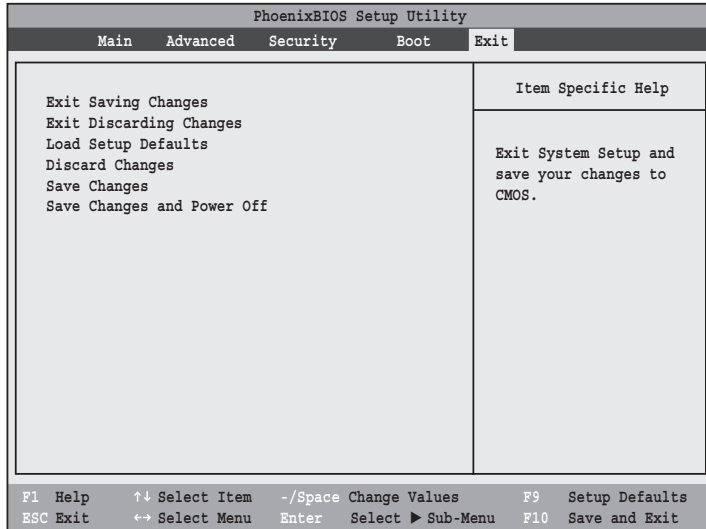


Figure 20. Exit Menu

Table 20: Fields, Options and Defaults for the Exit Menu

Menu Field	Description
Exit Saving Changes	Exit Saving Changes and Exit will store all the entries on every menu of the setup utility to the BIOS memory and then exit the setup utility. A confirmation message <i>Save Configuration changes and exit now? [Yes] [No]</i> will be displayed.
Exit Discarding Changes	Selecting Exit Discarding Changes and Exit will exit the setup utility with out writing to the BIOS memory. When the BIOS recognizes this selection it will load the operating system and begin operation.
Load Setup Defaults	Selecting Load Setup Defaults will load the factory preset default values for all menu fields, then display the message <i>Load default configuration now? [Yes] [No]</i> . When confirmed the setup utility will return to the Exit Menu. To return to another menu follow the directions in the Navigating Through the Setup Utility Section.
Discard Changes	Selecting Discard Changes will load the previous values in BIOS memory for all menu fields. The message <i>Load previous now? [Yes] [No]</i> will be displayed. When confirmed the utility will return to the Exit menu. To return to another menu, follow the directions in the Navigating Through the Setup Utility Section.
Save Changes	Selecting Save Changes causes the new settings in all menus to be written to the BIOS memory. The message <i>Save configuration changes now? [Yes] [No]</i> will be displayed. When confirmed, the setup utility will return to the Exit menu. To go to another menu, follow the directions in the Navigating Through the Setup Utility section.
Save Changes and Power Off	Selecting Save Changes and Power Off will cause the new settings in all menus to be written to the BIOS memory, then power the system off. The message <i>Save configuration changes now and power off? [Yes] [No]</i> will be displayed. When confirmed, the setup utility shut down the system.